

SHORTER NOTES

Dryopteris ludoviciana and *D.* × *australis* New to Arkansas.—Until recently, Arkansas was known to have three species and one hybrid of *Dryopteris* (Taylor & Demaree, *Rhodora* 81:503–548, 1979; Taylor, *Arkansas ferns and fern allies*, 1984), of which only *D. marginalis* (L.) Gray occurs frequently across the state. *D. spinulosa* (O. F. Muell.) Watt and *D.* × *leedsii* Wherry are each known from one locality, while *D. celsa* (Palmer) Small is known from three localities. Consequently, the discovery in 1984 of a species and a hybrid new to the state constituted significant additions to the fern flora of Arkansas and furnished important phytogeographic data on the distribution of *Dryopteris* taxa in eastern North America (Carlson & Wagner, *Contr. Univ. Mich. Herb.* 15:141–162, 1982).

Dryopteris ludoviciana (Kunze) Small, Louisiana Log Fern, was discovered for the first time in Arkansas at Warren Prairie State Natural Area (Bradley Co.), located 20 km west of Monticello (Peck & Peck 84641, LRU, MICH, MIL; Sundell & McIntyre 2864, UAM). The fern grows with *Lorinseria areolata* (L.) Presl in the moist, lowland *Quercus phellos* L. woods. This Coastal Plain locality is 350 km north of St. Mary Parish, Louisiana, and Hardin Co. and Tyler Co., Texas, sites of the nearest previously reported populations (Thomas, Wagner & Messler, *Castanea* 38:269–274, 1979; Correll & Correll, *Aquatic and wetland plants of Southwestern United States*, 1972). The Arkansas population is the most northwestern in North America, and only the fourth population known to occur west of the Mississippi River.

Dryopteris × *australis* (Wherry) Small, Southern Log Fern, the backcross hybrid between *D. celsa* and *D. ludoviciana*, was discovered for the first time in Arkansas at a wooded acid seep located at the southern periphery of the Ouachita Mts. in Garland Co., some 30 km southwest of Hot Springs (Orzell 1429, UARK; Peck 84680, LRU, MICH, MIL). The hybrid occurs with one parent, *D. celsa*, but not with *D. ludoviciana*. The closest known population of the latter species is at Warren Prairie, Bradley Co., Arkansas, 200 km to the southeast, making this hybrid population another example of “hybridization by remote control” (Wagner, *Amer. Fern J.* 33:71–73, 1943). The nearest hybrid populations occur in Louisiana, some 500 km to the southeast (Wagner & Musselman, *Castanea* 47:182–190, 1982). The Arkansas population is the most northwestern of the eight known populations of this North American hybrid. It is the third discovered and currently the only extant population west of the Mississippi River.

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